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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,599	09/22/2005	Juergen Breitenbacher	10191/3583	6564
26646 7590 03/16/2007 KENYON & KENYON LLP ONE BROADWAY NEW YORK, NY 10004			EXAMINER NGUYEN, XUAN LAN T	
			ART UNIT	PAPER NUMBER
			3683	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/16/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/524,599

Applicant(s)

BREITENBACHER ET AL.

Examiner

Lan Nguyen

Art Unit

3683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 14-26 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 February 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/14/05 & 5/22/06</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Information Disclosure Statement

1. Four documents are crossed out in the IDS form submitted 2/14/05 because these documents are missing from the file. Please resubmit these documents.

Drawings

2. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The substitute specification submitted 2/14/05 has been approved.
4. It is noted however, on page 14, line 7, "intake valves 801 and 802" should have been -- intake valves 801 and 803". Please correct.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

6. Claims 14 and 24-26 are rejected under 35 U.S.C. 102(a) as being anticipated by Oishi et al. (JP2003-019952A).

Re: claim 14, Oishi shows a method for braking two wheels of a vehicle, as in the present invention, comprising: linking a first value of a first brake pressure in a first wheel-brake cylinder 4 allocated to a first wheel of the two wheels with a second value of a second brake pressure in a second wheel-brake cylinder 6 allocated to a second wheel of the two wheels, wherein the linking is given on the basis of hydraulic pressure differentials dropping at respective intake valves including a first intake valve 8 and a second intake valve 9, as stated in the Abstract wherein the differential pressures are employed in the controlling method. Note that the term "linking" has been treated broadly in that the both first value and second value are both related according to the controlling method executed by the ECU.

Re: claim 24, Oishi shows a device for braking two wheels of a vehicle, as in the present invention, comprising: a first wheel brake cylinder 4 allocated to a first wheel of the two wheels; a second wheel brake cylinder 6 allocated to a second wheel of the two wheels; a first intake valve 8 allocated to the first wheel brake cylinder; a second intake valve 9 allocated to the second wheel brake cylinder; and a logic arrangement ECU for

Art Unit: 3683

linking a first hydraulic pressure differential dropping at the first intake valve and a second hydraulic pressure differential dropping at the second intake valve, as stated in the Abstract wherein wherein the differential pressures are employed by the ECU for controlling the brakes. Note that the term "linking" has been treated broadly in that the both first value and second value are both related and employed by the ECU in braking the wheels.

Re: claim 25, Oishi further shows that the logic arrangement is designed so that the first pressure differential and the second pressure differential are linked via a linkage of a first coil current through the first intake valve and a second coil current through the second intake valve, in the Abstract.

Re: claim 26, Oishi shows the first intake valve and the second intake valve are differential-pressure regulating valves in paragraph [0017].

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 15-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oishi et al. (JP2003-019952A) in view of Hartmann et al. (USP 5388896).

Re: claim 15, Oishi's method, as rejected in claim 14 shows the current for the second intake valve as a known value but lacks the step of determining a second

Art Unit: 3683

pressure differential of the hydraulic pressure differentials dropping at the second intake valve from a first pressure differential of the hydraulic pressure differentials dropping at the first intake valve. Hartmann teaches the concept of relating the pressures of two intake valves 5a, 5b in determining the braking forces for each wheel of the same axle in order to reduce a yaw moment of a vehicle during an ABS controlling method. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Oishi's method to employ the concept of relating the pressures of two intake valves 5a, 5b in determining the braking forces for each wheel of the same axle in order to reduce a yaw moment of a vehicle during an ABS controlling method as taught by Hartmann.

Re: claim 16, Oishi further shows the step of determining a coil current through the first intake valve; and from the coil current through the first intake valve, determining the first pressure differential, in the Abstract, lines 8-10.

Re: claim 17, Oishi shows the step of determining the first pressure differential from the coil current through the first intake valve by evaluating a characteristic curve in lines 1 and 2 of paragraph [0034] and figure 4.

Re: claims 18 and 19, Oishi shows the step of determining the coil current for generating the second pressure differential from a characteristic curve characterizing the second intake valve in lines 1 and 2 of paragraph [0034] and figure 4.

Re: claim 20, Oishi's method as rejected in claim 14 lacks the linking indicates a maximum value for a difference between the first pressure differential and the second pressure differential. Hartmann teaches the concept of setting a limit in the difference

Art Unit: 3683

between the pressures of the intake valves 5a, 5b in the Abstract, lines 4-7. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Oishi's method to include a step to set a limit in the difference between the pressures of the intake valves as taught by Hartmann in order to ensure that the brake would operate within a safe operating range.

Re: claim 21, Hartmann teaches the step of the linking indicates a difference between the first pressure and the second pressure. As modified, Oishi's method would comprise the step of indicating a difference between the first pressure differential and the second pressure differential.

Re: claims 22 and 23, Hartmann further teaches the concept of taking into consideration the vehicle speed and transverse acceleration in the controlling scheme in controlling the two wheels 5a and 5b which belong to the same axle as stated in the Abstract.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Johnson, Wuerth et al., Gerdes, Takemasa et al. and Erban et al. are cited for various other brake systems and controlling methods.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lan Nguyen whose telephone number is (571) 272-7121. The examiner can normally be reached on Monday through Friday, 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James McClellan can be reached on (571) 272-6786. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Xuan Lan Nguyen/ 2-28-07
Primary Examiner
Art Unit 3683